International application No.

PCT/AU2004/001170

or HEAT)(4D)(REDUC+ or CONDUCT+ or CARR+ or EXTRACT+ or TRANSFER+ or LOWER+ or DISSIPAT+ or REMOV+ or EXCHANG+))] or [((SURFACE AREA) or POROUS or LABYRINIH? or HOLES or GAPS or RANDOM or CONVOLUT+ or PASSAGE+ or PATHWAYS or CHANNELS]) or [(BEADS or RODS or BARS or BALL+ or SHAPE+ or MASS+ or PILE+)] } and (WELD+ or SINTER+ or MOULD+ or HEAT+ or MELT+) and (COOLANT or (COOL+(4D)(FLUID or LIQUID))  C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category*  Citation of document, with indication, where appropriate, of the relevant passages  Relevant to claim No.  A WO 1996/007857 A (REKSTAD)14 March 1996  A US 5 092 767 A (DEHLSEN) 3 March 1992  A GB 1 541 221 A (DRAKE) 28 February 1979  A WO 2001/094006 A (ABB LUMMUS GLOBAL, INC) 13 December 2001  A WO 1999/009356 A (MAYRHOFER) 25 February 1999  A WO 2002/080286 A (SOLAR SYSTEMS PTY LTD) 10 October 2002  Further documents are listed in the continuation of Box C X See patent family annex  * Special categories of cited documents:  "A" document defining the general state of the art which is not considered to be of particular relevance  "Ister document published after the international filing date or priority date and not it conflict with the application but cited to understand the principle or theory underlying the invention	<b>A.</b>	CLASSIFICATION OF SUBJECT MATTER					
B. FIELDS SEARCHED  Minimum documentation searched (elastification system fullowed by classification symbols)  Documentation searched either than minimum documentation to the extent that such documents are included in the fields searched  Electronic data base consulted during the international search (name of data base and, where practicable, search ferrirs used)  DWPI; (HOLL or 102N or F24D) and (PHOTOVOLT or SOLAR or SUN or PHOTOCELL) and . ((COOL+ or (TEM) or HEAT)(40)(REDUC+ or CONDUCT+ or CARR+ or EXTRACT+ or TRANSFER+ or LOWER+ or DISSIPAT+ or REMOV+ or EXCHANG+))] or [ ((SURFACE AREA) or POROUS or LABYRNIHT or HOLES or GAPS or RANDOM or CONVOLUT+ or PASSAGE+ or PATHWAYS or CHANNELS)) or ((BEADS or RODS or BARS or BALL+ or SHAPS+ or MASSA or PILEP1)] and (WELD+ or SINTER+ or MOULD+ or HEAT+ or MELT+) and (COOL+ANT or (COOL+(4D)(FLUID or LIQUID))  C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category*  Citation of document, with indication, where appropriate, of the relevant passages  Relevant to claim No.  A WO 1996/007857 A (REKSTAD)14 March 1996  A US 5 092 767 A (DEHLSEN) 3 March 1992  A GB 1 541 221 A (DRAKE) 28 February 1979  A WO 2001/094006 A (ABB LUMMUS GLOBAL, INC) 13 December 2001  A WO 1999/009356 A (MAYRHOFER) 25 February 1999  WO 2002/080286 A (SOLAR SYSTEMS PTY LTD) 10 October 2002  Further documents are listed in the continuation of Box C X See patent family amnex  **  Special categories of cited documents: document to deviate the best later than the published on or efter the accument which may throw doubt to a priority claim(s) or charmed the box special releases (as specifies) not excellent to be or patent but published on or efter the accument published for the international search to considered to involve an inventive step when the document to taken document or the same patent family amnex  **  Comment which may throw doubt to a priority claim(s) or which is cited to established him published not not enter the same patent family and comment or the same patent family and comment or the same p	Int. Cl. 7:	H01L 31/052, H02N 6/00					
Minimum documentation searched (elassification system followed by classification symbols)  Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  DWPI: (Hol I. or Ho2N or F24J) and (FHOTOVOLT or SOLAR or SUN or PHOTOCELL) and ([(COOL+ or (TEIM) or HEAT)(4D)(REDUC+ or CONDUCT+ or CARR+ or EXTRACT+ or TRANSFER+ or LOWER+ or DISSPAT+ or REMOV+ or EXCHANO+1)) or [(GURFACE AREA) or POROUS or LABYRINTH? or HOLES or GAPS or RANDOM or CONVOLUT+ or PASSAGE+ or PATHWAYS or CHANNELS)) or [(BEADS or RODS or BARS or BALL+ or SHAPR+ or MASS+ or PILEP1)] and (WELD+ or SINTER+ or MOULD+ or HEAT+ or MELT+) and (COOLANT or (COOL+(4D)(FLUID or LIQUID))  C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category*  Citation of document, with indication, where appropriate, of the relevant passages  Relevant to claim No.  A WO 1996/007857 A (REKSTAD)14 March 1996  A US 5 092 767 A (DEHLSEN) 3 March 1992  A WO 2001/094006 A (ABB LUMMUS GLOBAL, INC) 13 December 2001  A WO 1999/009356 A (MAYRHOFER) 25 February 1979  A WO 2002/080286 A (SOLAR SYSTEMS PTY LTD) 10 October 2002  Further documents are listed in the continuation of Box C X See patent family amnex  **  Section temporal defining that general trains are profited to be of particular relevance or other means or other such consideration being obvious to a practical relicion or other patents or a unal discipations or other means or other mean	According to I	International Patent Classification (IPC) or to both	national classification and IPC				
Decumentation searched other than minimum documentation to the extent that such documents are included in the fields searched  Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  DWPI: (HOIL or HO2N or F24J) and (PHOTOVOLT or SOLAR or SUN or PHOTOCELL) and ({(COOL+ or (TEMD OF REAT)/41D)(REDUC+ or CONDUCT+ or CARR+ or EXTRACT+ or TRANSFER+ or LOWER+ or DISSIPAT+ or REMOV+ or EXCHANG+))] or [((SURFACE AREA) or POROUS or LABYRINTH? or HOLES or GAPS or RANDOM or CONVOLUT+ or PASSAGE+ or PATHWAYS or CHANNELS)) or ((BEADS or RODS or BARS or BALL+ or SHAPE+ or MASS+ or PILE+))] and (WELD+ or SINTER+ or MOULD+ or HEAT+ or MELT+) and (CCOOLANT or (COOL+(4D)(FLUID or LQUID))  C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category*  Citation of document, with indication, where appropriate, of the relevant passages  Relevant to claim No.  A WO 1996/007857 A (REKSTAD)14 March 1996  A US 5 092 767 A (DEHLSEN) 3 March 1992  A WO 2001/094006 A (ABB LUMMUS GLOBAL, INC) 13 December 2001  A WO 1999/009356 A (MAYRHOFER) 25 February 1999  A WO 2002/080286 A (SOLAR SYSTEMS PTY LTD) 10 October 2002  Further documents are listed in the continuation of Box C  See patent family annex  **  **  **  **  **  **  **  **  **	В.	FIELDS SEARCHED					
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  DWPI: (H01L or H02N or F243) and (PH0T0VOLT or SOLAR or SUN or PH0T0CELL) and {{(COOL+ or (TEM0 or HEAT)(4D)(REDUC+ or CONDUCT+ or CARR+ or EXTRACT+ or TRANSFER+ or LOWER+ or DISSIPAT+ or REMOV+ or EXCHANC+)} or (SURFACE AREA) or PROUJS or LAB YRINTHF; or H0LES or GAPS or RANDOM or CONVOLUT+ or PASSAGH+ or PATHWAYS or CHANNELS]) or (BEADS or RODS or BARS or BALL+ or SHAPE+ or MASS+ or PILE+)] } and (WELD+ or SINTER+ or MOULD+ or HEAT+ or MELT+) and (COOLANT or (COOL+(4D)(FLUID or LIQUID))  C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category*  Citation of document, with indication, where appropriate, of the relevant passages  Relevant to claim No.  A WO 1996/007857 A (REKSTAD) 14 March 1996  A US 5 092 767 A (DEHLSEN) 3 March 1992  A WO 2001/094006 A (ABB LUMMUS GLOBAL, INC) 13 December 2001  A WO 1999/009356 A (MAYRHOFER) 25 February 1999  A WO 2002/080286 A (SOLAR SYSTEMS PTY LTD) 10 October 2002  Further documents are listed in the continuation of Box C  Further documents are listed in the continuation of Box C  * Special eategories of cited documents: document by bilished after the international filing date or priority claim(e) or which is cited to establish the published on or after the international filing date or priority claim(e) or which is cited to establish the publishation date of another dentation or other special reason (as specific) document which may throw doubts on priority claim(e) or which is cited to establish the publishation date of another division or patent but problem on the international filing date or priority claim(e) or which is cited to establish the publishation date of another division or patent but or believed to involve an inventive step when the document is combined with one or more other which and the principle or theory which is cited to be stablish the publishation date of another division or patent family and comment and the principle or theory which is	Minimum docu	mentation searched (classification system followed by cla	assification symbols)				
DWPI: (HOLL or HOZN or F24J) and (PHOTOVOLT or SOLAR or SUN or PHOTOCELL) and (I(COOL+ or (TEM) or HEAT)40)(REDIUC+ or CONDUCT+ or CARR+ or EXTRACT+ or TRANSFER+ or LOWER+ or DISSIFAT+ or REMOV+ or EXCHANG+))] or [ ((SURFACE AREA) or POROUS or LABYRNTH? or HOLES or GAPS or RANDOM or CONVOLUT+ or PASSAGE+ or PATHWAYS or CHANNELS]) or ((BEADS or RODS or BARS or BALL+ or SHAPE+ or MASS+ or PILE-1)] and (WELD+ or SINTER+ or MOULD+ or HEAT+ or MELT+) and (CCOLANT or (CCOL+(4D)(FLUID or LIQUID))  C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category*  Citation of document, with indication, where appropriate, of the relevant passages  Relevant to claim No.  A WO 1996/007857 A (REKSTAD)14 March 1996  A US 5 092 767 A (DEHLSEN) 3 March 1992  A WO 2001/094006 A (ABB LUMMUS GLOBAL, INC) 13 December 2001  A WO 1999/009356 A (MAYRHOFER) 25 February 1999  A WO 2002/080286 A (SOLAR SYSTEMS PTY LTD) 10 October 2002  Further documents are listed in the continuation of Box C  Special categories of cited document:  "A"  Special categories of cited documents:  "A"  Special categories of cited accument is taken alone of councies of cited documents:  "A"  Special categories of cited documents:  "A"  Special categories of cited accuments is taken alone of councies of cited accuments on the continuation of particular relevance; th	Documentation	searched other than minimum documentation to the exte	nt that such documents are included in the fields search	h <b>ed</b>			
DWPI: (HOIL or HO2N or F24J) and (PHOTOVOLT or SOLAR or SUN or PHOTOCELL) and (I(COOL+ or (TEM) or HEAT)(4D)(REDIUC+ or CONDUCT+) or CARR+ or EXTRACT+ or TRANSPER+ or LOWER+ or DISSIPAT+ or REMOV+ or EXCHANG+))] or [ ((SURFACE AREA) or POROUS or LABYRNTH? or HOLES or GAPS or RANDOM or CONVOLUT+ or PASSAGE+ or PATHWAYS or CHANNELS]) or ((BEADS or RODS or BARS or BALL+ or SHAPE+ or MASS+ or PILE+)] } and (WELD+ or SINTER+ or MOULD+ or HEAT+ or MELT+) and (COOLANT or (COOL+(4D)(FLUID or LIQUID))  C. DOCUMENTS CONSIDERED TO BE RELEVANT  Category*  Citation of document, with indication, where appropriate, of the relevant passages  Relevant to claim No.  A WO 1996/007857 A (REKSTAD)14 March 1996  A US 5 092 767 A (DEHLSEN) 3 March 1992  A WO 2001/094006 A (ABB LUMMUS GLOBAL, INC) 13 December 2001  A WO 1999/009356 A (MAYRHOFFR) 25 February 1999  A WO 2002/080286 A (SOLAR SYSTEMS PTY LTD) 10 October 2002  Further documents are listed in the continuation of Box C  Special categories of cited documents:  **Special categories of cited documents is combined with one priority claim(6) or which is cited to eachlish the published on or after the international fling date or scaled relation or other special cases of special ca	Electronic data 1	hase consulted during the international search (name of	late hase and where practicable ground towns and l				
Category* Citation of document, with indication, where appropriate, of the relevant passages  Relevant to claim No.  A WO 1996/007857 A (REKSTAD)14 March 1996  A US 5 092 767 A (DEHLSEN) 3 March 1992  A GB 1 541 221 A (DRAKE) 28 February 1979  A WO 2001/094006 A (ABB LUMMUS GLOBAL, INC) 13 December 2001  A WO 1999/009356 A (MAYRHOFER) 25 February 1999  A WO 2002/080286 A (SOLAR SYSTEMS PTY LTD) 10 October 2002  Further documents are listed in the continuation of Box C X See patent family annex  * Special categories of cited documents:  "A" document defining the general state of the art which is not considered to be of particular relevance  "E" earlier application or patent but published on or after the international filing date or international filing date or international filing date or international filing date or involve an inventive step when the document is taken or or other reposal reason (as specified) document referring to an oral disclosure, use, exhibition or or other means  "P" document published prior to the international filing date or more other such later than the priority date claimed  Date of the actual completion of the international search 8 October 2004  Date of the actual completion of the international search 8 October 2004  Name and mailing address of the ISA/AU  Australian PATENT OFFICE  PO BOX 200, WODEN ACT 2606, AUSTRALIA	or HEAT)(41 or REMOV+ RANDOM or BALL+ or SI	DWPI: (H01L or H02N or F24J) and (PHOTOVOLT or SOLAR or SUN or PHOTOCELL) and {[(COOL+ or (TEMP or HEAT)(4D)(REDUC+ or CONDUCT+ or CARR+ or EXTRACT+ or TRANSFER+ or LOWER+ or DISSIPAT+ or REMOV+ or EXCHANG+))] or [(SURFACE AREA) or POROUS or LABYRINTH? or HOLES or GAPS or RANDOM or CONVOLUT+ or PASSAGE+ or PATHWAYS or CHANNELS]) or [(BEADS or RODS or BARS or BALL+ or SHAPE+ or MASS+ or PILE+)] } and (WELD+ or SINTER+ or MOULD+ or HEAT+ or MELT+) and					
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A US 5 092 767 A (DEHLSEN) 3 March 1992  A GB 1 541 221 A (DRAKE) 28 February 1979  A WO 2001/094006 A (ABB LUMMUS GLOBAL, INC) 13 December 2001  A WO 1999/009356 A (MAYRHOFER) 25 February 1999  A WO 2002/080286 A (SOLAR SYSTEMS PTY LTD) 10 October 2002  Further documents are listed in the continuation of Box C X See patent family annex  * Special categories of cited documents:  "A" document defining the general state of the art which is not considered to be of particular relevance:  "E" carlier application or patent but published on or after the international filing date or priority date and not in international filing date or priority claim(s) or which is cited to establish the publication date of another clustion or other special reason (as specified) document referring to an oral disclosure, use, exhibition or other means  "P" document published prior to the international filing date but later than the priority date claimed  Date of the actual completion of the international search 8 October 2004  Name and mailing address of the ISA/AU  AUSTRALIAN PATENT OFFICE  PO BOX 200, WODEN ACT 2606, AUSTRALIA  AUSTRALIAN PATENT OFFICE  PO BOX 200, WODEN ACT 2606, AUSTRALIA  AUSTRALIAN PATENT OFFICE  PO BOX 200, WODEN ACT 2606, AUSTRALIA	Category*	Citation of document, with indication, where appr	opriate, of the relevant passages				
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"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) document referring to an oral disclosure, use, exhibition or other means  "P" document published prior to the international filing date but later than the priority date claimed  Date of the actual completion of the international search  8 October 2004  Name and mailing address of the ISA/AU  Authorized officer  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art document member of the same patent family  Date of mailing of the international search report  Authorized officer  Authorized officer	"E" earlier application or patent but published on or after the "X" document of particular relevance; the claimed invention cannot be considered novel international filing date or cannot be considered to involve an inventive step when the document is taken						
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Facsimile No. (02) 6285 3929  Telephone No : (02) 6283 2210	AUSTRALIAN I PO BOX 200, W E-mail address: 1	PATENT OFFICE ODEN ACT 2606, AUSTRALIA pct@ipaustralia.gov.au	S. T. PRING				

Information on patent family members

International application No. PCT/AU2004/001170

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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WO 1996/007857	AU 34864/95, (698042)	CA 2 198 897	DE 695 02 957
	EP 776 448	JP 10/502728	
US 5 092 767	NONE		•
GB 1 541 221	NONE		
WO 2001/094006	AU 65326/01		
WO 1999/009356	EP 897 090	· AU 87182/98,	JP 2001/515198
WO 2002/080286	US 2004103680	EP 1 374 317	

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX

International application No.

PCT/AU2004/001170

A. (	CLASSIFICATION OF SUBJECT MATTER					
Int. Cl. 7:	H01L 31/052, H02N 6/00					
According to I	According to International Patent Classification (IPC) or to both national classification and IPC					
B. 1	FIELDS SEARCHED	•				
Minimum docur	nentation searched (classification system followed l	by classification symbols)	•			
Documentation :	searched other than minimum documentation to the	extent that such documents are included in the fields search	ned			
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DWPI: (H01L or H02N or F24J) and (PHOTOVOLT or SOLAR or SUN or PHOTOCELL) and {[(COOL+ or (TEMP or HEAT)(4D)(REDUC+ or CONDUCT+ or CARR+ or EXTRACT+ or TRANSFER+ or LOWER+ or DISSIPAT+ or REMOV+ or EXCHANG+))] or [ ((SURFACE AREA) or POROUS or LABYRINTH? or HOLES or GAPS or RANDOM or CONVOLUT+ or PASSAGE+ or PATHWAYS or CHANNELS]) or [(BEADS or RODS or BARS or BALL+ or SHAPE+ or MASS+ or PILE+)] } and (WELD+ or SINTER+ or MOULD+ or HEAT+ or MELT+) and (COOLANT or (COOL+(4D)(FLUID or LIQUID))						
<b>C.</b> 1	DOCUMENTS CONSIDERED TO BE RELEVAN	T	• .			
Category*	y* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No.					
A	WO 1996/007857 A (REKSTAD)14 March 1996					
A	US 5 092 767 A (DEHLSEN) 3 March 1992					
<b>A</b> .	GB 1 541 221 A (DRAKE) 28 February 1979					
A	WO 2001/094006 A (ABB LUMMUS GLOBAL, INC) 13 December 2001					
A	WO 1999/009356 A (MAYRHOFER) 2	5 February 1999				
A	WO 2002/080286 A (SOLAR SYSTEMS PTY LTD) 10 October 2002					
Further documents are listed in the continuation of Box C X See patent family annex						
* Special categories of cited documents:  "A" document defining the general state of the art which is not considered to be of particular relevance  "E" earlier application or patent but published on or after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  "X" document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  "X" document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone						
"L" document which may throw doubts on priority claim(s) "Y" document of particular relevance; the claimed invention cannot be considered to or which is cited to establish the publication date of involve an inventive step when the document is combined with one or more other another citation or other special reason (as specified) such documents, such combination being obvious to a person skilled in the art						
"O" document referring to an oral disclosure, use, exhibition or other means "&" document member of the same patent family						
"P" document published prior to the international filing date but later than the priority date claimed						
Date of the actual completion of the international search  8 October 2004  Date of mailing of the international search report  15 0CT 2004						
8 October 20 Name and maili	ng address of the ISA/AU	Authorized officer				
AUSTRALIAN PATENT OFFICE			•			
E-mail address:	WODEN ACT 2606, AUSTRALIA pct@ipaustralia.gov.au	S. T. PRING				
Facsimile No. (	(02) 6285 3929	Telephone No: (02) 6283 2210				

Information on patent family members

International application No.

PCT/AU2004/001170

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report	Patent Family Member		
WO 1996/007857	AU 34864/95, (698042)	CA 2 198 897	DE 695 02 957
<b>'</b>	EP 776 448	JP 10/502728	
US 5 092 767	NONE		
GB 1 541 221	NONE		•
WO 2001/094006	AU 65326/01		
WO 1999/009356	EP 897 090	AU 87182/98,	JP 2001/515198
WO 2002/080286	US 2004103680	EP 1 374 317	

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

**END OF ANNEX**